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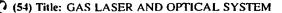
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(57) Abstract: An optical apparatus e.g. an interferometric displacement determination device; spectroscopic analysis apparatus; polarisation measurement apparatus; or a heterodyne frequency measurement device has a linear HeNe gas laser having an Ne content of an Ne²⁰ isotope and an Ne²² isotope in substantially equal proportions, the apparatus in use having optical feedback toward the laser causing, 0.1 % or more of the light output of the laser to be returned toward the laser (1). Use of this type of laser provides good polarisation stability even though excessive backreflection may occur, and hence the laser's frequency can be readily controlled.